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Shambezadeh, Jamshid; Forouzbakhsh, Farshid

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Paper: APPLICATION OF VQ INDICES SIMILARITY IN IMAGE COMPRESSION

Author(s): SHANBEHZADEH J., FIROUZ BAKHSH F.

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Abstract:

Inter-pixel correlation in natural images is very high, and it affects the indices of vector- quantized image in such a way that the probability of having neighboring blocks with an identical index, at low bit rate, is high. This paper exploited block index characteristic to achieve more compression. We can employ the proposed scheme in conjunction with any traditional vector quantization technique to obtain an improved performance. At least an improvement of 28 percent has been observed in the result of simulations reported in this paper. In addition, the performance of the new coder is significantly better than the JPEG coding standards at very low bit rates.

Keyword(s): IMAGE CODING, IMAGE PROCESSING, VECTOR QUANTIZATION, IMAGE RETTEIVAL, INTERNET IMAGING